

CLAIMS

1. Apparatus for reducing clogging of a pipe, the apparatus comprising
5 a body having an open end adapted to be detachably connected to an aperture of the pipe, a shaft moveable within and relative to the body, a scraping device attached to one end of the shaft, means for reciprocally moving the shaft to urge the scraping device into the pipe to dislodge particulates deposited within the pipe and to withdraw the
10 scraping device from the pipe, and, extending about the body, means for injecting heated, compressed gas into the body to inhibit particulate deposition therein.
2. Apparatus according to Claim 1, wherein the injecting means
15 comprises one or more orifices located on an inner surface of the body.
3. Apparatus according to Claim 1 or Claim 2, wherein the gas is
20 injected at a temperature within the range from 50 to 200°C, preferably within the range from 80 to 150°C.
4. Apparatus according to any preceding claim, wherein said gas comprises dry air or nitrogen.
- 25 5. Apparatus according to any preceding claim, comprising heating means extending about the body for maintaining the temperature within the body within the range from 50 to 200°C, preferably within the range from 80 to 150°C.
- 30 6. Apparatus according to any preceding claim, wherein the scraping device has an open construction.

7. Apparatus according to any preceding claim, wherein the scraping device comprises a helical coil.
8. Apparatus according to any preceding claim, wherein the scraping device is formed from a chemically inert and mechanically stable solid material, such as stainless steel.
9. Apparatus according to any preceding claim, wherein the moving means comprises a piston attached to the other end of the shaft, the piston being reciprocally moveable within a cylinder.
10. Apparatus according to any preceding claim, wherein the moving means is arranged to rotate the shaft to thereby rotate the scraping device within the pipe.
11. Apparatus according to any preceding claim, wherein, when fully withdrawn from the pipe, the scraping device is substantially contained within the body so as not to be exposed to gases within the pipe.
12. Apparatus according to any preceding claim, comprising means for preventing particulates from being drawn into the moving means as the shaft is withdrawn from the pipe.
13. Apparatus according to Claim 13, comprising scraping means for scraping particulates from the shaft during movement thereof.
14. Apparatus according to Claim 14, wherein the scraping means comprises an annular seal through which the shaft passes.
15. Apparatus for reducing clogging of an inlet pipe to a wet scrubber, the apparatus comprising a body having an open end adapted to be

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detachably connected about an aperture of the inlet pipe, a shaft moveable within and relative to the body, a scraping device attached to one end of the shaft, means for reciprocally moving the shaft to urge the scraping device into the inlet pipe to dislodge particulates deposited within the pipe and to withdraw the scraping device from the inlet pipe, and, extending about the body, means for injecting heated, compressed gas into the body to inhibit particulate deposition therein.

10 16. A method of reducing clogging of a pipe, the method comprising detachably connecting to an aperture of the pipe an attachment comprising a body, a shaft moveable within and relative to the body, and a scraping device attached to one end of the shaft; reciprocally moving the shaft to urge the scraping device into the pipe to dislodge
15 particulates deposited within the pipe and to withdraw the scraping device from the pipe; and injecting heated, compressed gas into the body to inhibit particulate deposition therein.

20 17. A method of reducing clogging of an inlet pipe to a wet scrubber, the method comprising detachably connecting to an aperture of the inlet pipe an attachment comprising a body, a shaft moveable within and relative to the body, and a scraping device attached to one end of the shaft; reciprocally moving the shaft to urge the scraping device into the inlet pipe to dislodge particulates deposited within the pipe and to
25 withdraw the scraping device from the inlet pipe; and injecting heated, compressed gas into the body to inhibit particulate deposition therein.

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